CALIFORNIA DEPARTMENT OF TRANSPORTATION
POSITION DUTY STATEMENT

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Electrical Engineering Technician II	District 10/Maint. & Operations/Electrical Systems	
WORKING TITLE	**POSITION NUMBER**	**EFFECTIVE DATE**
EET II		

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work regularly and on time; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.

GENERAL STATEMENT:

This is the full journey level position of the Electrical Engineering Technician Series. Under the supervision of a Senior Transportation Electrical Engineer and the general direction of a Lead Engineer, the incumbent performs a variety of technical electrical activities within the Electrical Systems Branch. The duties include:

TYPICAL DUTIES:

45% (E) The incumbent will assist with conducting field investigations and data collection checks for the District Traffic Census Program. Duties include documenting operational deficiencies and integrating difficult Census equipment related to Traffic Monitoring Stations (TMS), Automatic Vehicle Classification (AVC) Stations, Vehicle Count Stations and other electrical/electronic devices.

25% (E) The incumbent will inspect routine contractor and manufacturer installations of electrical and electronic Census equipment, on State construction projects, for operational compliance with State standard design requirements and specifications. This task will include checking complete design and contract drawings, shop drawings, and construction submittals for electrical and electronic work deployed on Capital Outlay Support (COS) projects.

10% (E) The incumbent will incorporate electrical and electronic details into general plans and occasionally work on drawings and designs other than electrical and electronic. The incumbent will report the status of this general electronic engineering work and completed results.

10% (E) The incumbent will secure information from catalogs and use state-of-the-art technology such as computers to access the internet to gather information to make routine engineering calculations and decisions. The incumbent will make routine engineering calculations and prepare cost estimate reports to rectify operational deficiencies.

10% (M) The incumbent will assist in developing procedures to test and implement innovative electrical equipment associated with Census-related communication and instrumentation systems.

SUPERVISION EXERCISED OVER OTHERS

None.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Ability to use state-of-the-art technology such as traffic volume counters, wireless communication and laptop computers for routine traffic and electrical field element diagnostics.

Ability to work independently and prepare engineering calculations.

Ability to utilize traffic data management software, such as Trafman or Centurion, to collect traffic volume data for the Transportation System Network (TSN).

Ability to collect and download special vehicle count requests on short notice. (Planning, Traffic Operations, Traffic Safety, Legal and Local agencies)

Ability to check and plot from field notes and prepare and check complex plans, quantity and cost estimates and specifications of electrical and electronic work.

Ability to do routine layout work; specify and estimate electrical and electronic materials and components.

Ability to review complex manufacturing submittals and perform field inspection of equipment and electrical and electronic systems; correlate plans, designs, drawings and data with physical conditions.

Knowledge of electrical, electronic and associated systems; electrical and electronic material, components, installation and construction methods.

Knowledge of drafting symbols, electrical control schematic and wiring diagrams.

Knowledge of general electrical and electronic theory, practice and engineering mathematics.

Ability to interpret electrical drawings, plans and specifications of any kind encountered in the work and incorporate electrical, electronic and associated drawings, plans and specifications into general design and contract documents.

Ability to prepare as-built plans; use state-of-the-art technology, i.e., CADD, personal computers, and stand-alone interactive systems.

Must be familiar with the department's safety and health policies and procedures.

Must have knowledge of basic safety practices contained in the California Code of Regulations, Title 8 Industrial Relations, Safety Orders, and the General Industry Safety Orders regarding personal protective equipment.

Ability to follow detailed directions and report the status of work and the completed results.

Must have the ability to analyze written correspondence for proper structure and format.

Must have working knowledge of standard desktop computer software applications.

SPECIAL REQUIREMENT

Valid California Drivers License, Class C.

CONSEQUENCE OF ERROR/RESPONSIBILITY OF DECISIONS

The incumbent will serve as an Electrical Engineering Technician for the Branch. Decisions made could be used as the basis for actions taken by others. Improper judgments and errors made by the incumbent could result in the District's inability to provide critical project information and respond to the public in a timely manner. Failure to understand and incorporate good judgment may result in unnecessary expenditure of time, materials and create excessive delay when dealing with public.

PUBLIC AND INTERNAL CONTACTS

The incumbent must maintain an effective, cooperative, and professional working relationship representative when interacting with the public.

The incumbent is responsible for his/her actions, decisions, quality of completed work, and proper use of State time, equipment and materials. Improper performance of duties and/or failure to adhere to established policies, procedures and guidelines could lead to adverse action and possible termination.

WORK ENVIRONMENT

The incumbent will primarily work in a climate-controlled office under artificial lighting. However, due to unexpected heating and air conditioning problems, the building temperature may fluctuate. The incumbent may be required to travel, in one-day trips, and work outdoors. The incumbent may occasionally be exposed to a variety of inclement weather conditions (extreme cold or hot weather), and may be exposed to dirt, noise and uneven surfaces.

The incumbent will receive supervision from a Senior Transportation Electrical Engineer and general direction from a Lead Engineer. Supervision over normal operations is broad with detailed instructions given on critical or complex technical matters.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS

The incumbent will be required to sit for long periods of time using a keyboard and video display terminal.

The incumbent will be required to routinely install and review electronic traffic count devices near live traffic.

The incumbent must keep up with expedited requests for information.

The incumbent may be required to do vehicle traffic counts for long periods of time, requiring employee to sit for long periods of time under extreme cold or hot weather.

The incumbent will be required to drive a State vehicle on field reviews.

Incumbent may be expected to lift and/or carry supplies weighing up to 40 pounds.

Occasional bending, stooping and kneeling will be required to work on electronic traffic count devices.

Incumbent must conduct oneself in a fair and ethical manner toward others and demonstrate a sense of responsibility and commitment to public service.

I have read and understand the duties listed above and can perform them with/without reasonable accommodation. (If you believe you may require reasonable accommodation, please discuss this with the hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

EMPLOYEE DATE

I have discussed with and provided a copy of this duty statement to the employee named above.

SUPERVISOR DATE